



ISP

# Salons & Spas

Men, Women, & Kids  
Services and Sales

What do they Want?  
What can They do for us?  
What can We do for them?

Ontario Chapter SCC 9/24/09  
by Joseph A. Dallal, L.C., M.Sc.  
ISP Sr. Mgr. Technical Services, Personal Care

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This slide features a teal header and footer. The main content area is white. On the left, there are three overlapping images: a woman's profile, a woman in a bikini holding a product, and a man brushing his teeth. The ISP logo is in the top right corner. The title 'Salons & Spas' is in large blue font, followed by 'Men, Women, & Kids Services and Sales' in a smaller blue font. Below that are three blue bullet points with white text. At the bottom right, the author information is in a smaller black font. The copyright notice is in the bottom left corner.



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# Salons vs Spas

What's the Difference?

What do They Need?  
What can They Do for Us?  
What can WE Do for Them?  
How can We Work Together?  
How do We Quantify?

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This slide features a teal header and footer. The main content area is white. On the left, there are two overlapping images: a woman's profile and a woman in a bikini holding a product. The ISP logo is in the top right corner. The title 'Salons vs Spas' is in large red font, followed by 'What's the Difference?' in a smaller red font. Below that are five black bullet points with white text. The copyright notice is in the bottom left corner.

## Marketing, Confidentiality, Privacy



### Services and Products

- Demonstrated or Delivered in Private
- Exclusivity
- Personal Attention
- Customized to Specific Needs
- Difficult to Apply or Multi-Step Products, Equipment, Tool or Technique specific, Regimen or Multi Application Treatment

### Clients:

- Upscale Client
- Time for Pampering/Alone Time/Features

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## Services



- Wigs, Look Good/Feel Better
- Scalp Treatments, Massage and Chemical/Laser
- Brazilian or Japanese Hair Straightening
- Perms, Relaxers, Highlighting, Weaving
- Facials: Massage through Peels
- Eyelash Extensions, Wrinkle Treatments
- Full Body Massage, Hot/Cold Stone Treatments
- Manicures, Pedicures, Waxing
- Mud Packs: Head to Toe, High Pressure Wash
- Exfoliation: Mechanical to Chemical
- Laser Treatments, UV Treatments
- And .. . . . .

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## Who are They?

- Licensed Cosmetologists
- Licensed Aestheticians
- Licensed Manicurists
- Licensed Massage Therapists
  
- Business Owners
- Managers, Marketers, Salespeople, Accountants
- Acting CHEMISTS
- Conflict Negotiators
- Creative Artists developing an Immediate Product/Effect/Response
  
- 100% Involved in Outcome/Success/Risk



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## What do they Want?

- Current Products (Fill out the Line, Modifications)
- New Products
- Exclusive Products (not in Grocery Store)
- Multi-Step Products
- High Performance Products
- Products which Produce Effects: Visual, Sensory, Immediate, Long Term, Consumer Perceivable
- Support Products for Resale
  
- **Translates:** Opportunities for R&D Chemists/Designers



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## Where do you START to formulate a NEW product?

- **Harry's Cosmeticology (Martin Reiger)**
- **Maison de Navarre**
- **Robbin's Chemical and Physical behavior of Human Hair**
- **Schueller/Romanowski's Beginning Cosmetic Chemistry**
- **Hair and Hair Care (Dale Johnson)**
- **Milady's Textbook of Cosmetology**
- **Magazines**
- **SCC Monographs**
- **Suppliers**
- **MENTORS**
- **AND . . . . .Get to Know the User and Product Type**



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## How to Evaluate our Prototypes

- **On hair swatches, mannequins, Cadaver Skin, Pig skin**
- **Synthetic skin → On ourselves**
- **Panelists in our controlled Creative Scientific Salon setting or Outside Clinical Laboratory**
- **Panelist Reading**
- **Expert Reading**
- **Instrumental Measurements**
  
- **Objective vs Subjective Information**



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## What to Evaluate?



- **Appearance or Flow etc., :**
  - In the Bottle
  - Delivering from the Bottle
  - Into the Hand or Onto the Client
  - Initial Spreading/Distribution
  
  - Including Smell, Opacity, Flow Characteristics (open bottle and through actuator), Flow in the Hand, On the Skin/Through the Hair, Performance, Stability (in Glass/final Bottle), Scale-Up, Preservative Challenge, Regulatory Status

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## Shampoo Evaluation



- **Consumer Type Evaluations**
  - In the Store
  - In the Shower
  - During Styling
- **Laboratory Observations and Measurements**
  - In the Beaker
  - Into the Bottle, In the Bottle, From the Bottle
  - In the Hand, Distributing, Lathering
  - On the Hair, During and After Rinsing and Styling

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### Observations

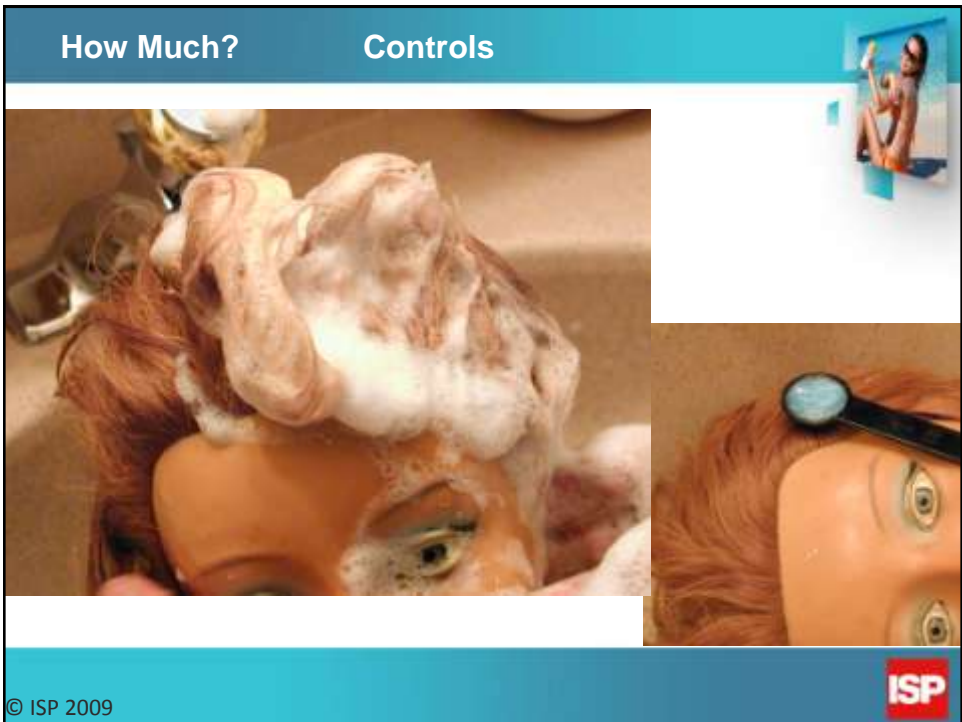


This slide illustrates hand hygiene observations. It features a teal header with the word "Observations". The main content area is divided into three sections: a large image on the left showing a hand being washed with soap and water, a smaller image on the top right showing a person in a white lab coat washing their hands, and a large image on the bottom right showing a hand being washed with soap and water. A teal footer contains the copyright notice "© ISP 2009" on the left and the "ISP" logo on the right.

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### How Much? Controls



This slide illustrates hand hygiene controls. It features a teal header with the words "How Much?" and "Controls". The main content area is divided into three sections: a large image on the left showing a hand being washed with soap and water, a smaller image on the top right showing a person in a white lab coat washing their hands, and a large image on the bottom right showing a hand being washed with soap and water. A teal footer contains the copyright notice "© ISP 2009" on the left and the "ISP" logo on the right.

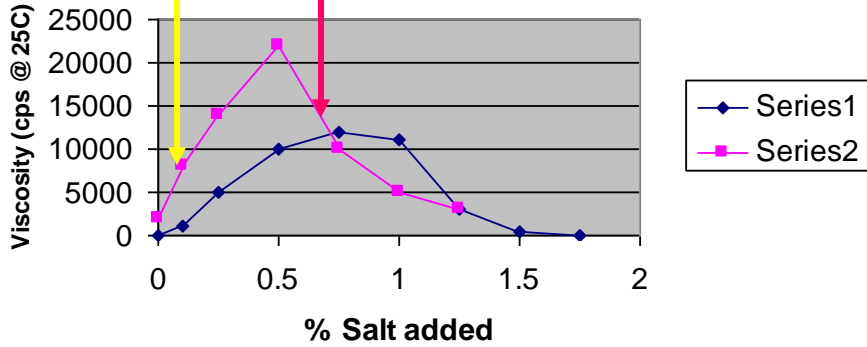
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# Salt Curves vs Tactile/Visual (Specs)



## Viscosity Response to Salt



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# Micelle Organization: Texture → Performance

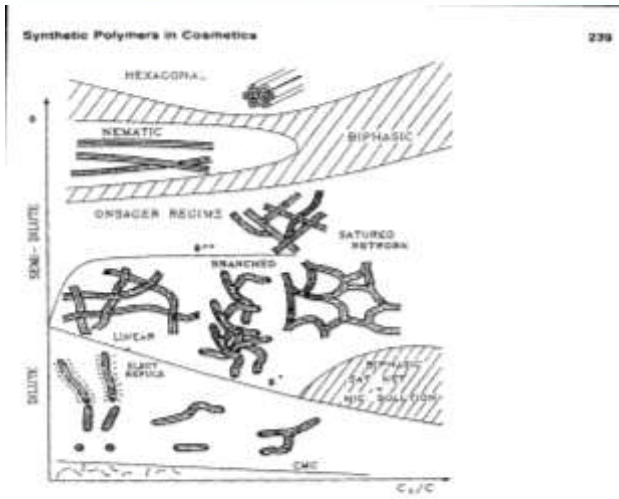


Figure 25 Morphological behavior of surfactant in aqueous solution: surfactant volume fraction.  $\Phi$  versus molar ratio  $C_1/C_2$  of salt over surfactant concentrations. (Reprinted with permission from Ref. 66. Copyright 1994 American Chemical Society).

Vince Grueber

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## Lathering Tests

- Cylinder Shake Test
- Hart de George
- Stability
- Drainage
- Opacity
- Creaminess, Texture, Single bubble shape
- Density



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## Texture, Lubricity, Appearance, Stability



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## Reconfirm → Translate



Reproducibility; Water Content; Artifacts

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## Smoothness on Hair

- **Panel Testing**
  - Swatch
  - Mannequin
  - Panel, Take home, Self
  - Salon
- **Load Cell Combing**
  - For Quantification
  - SRCA Window Analysis or Entire Swatches

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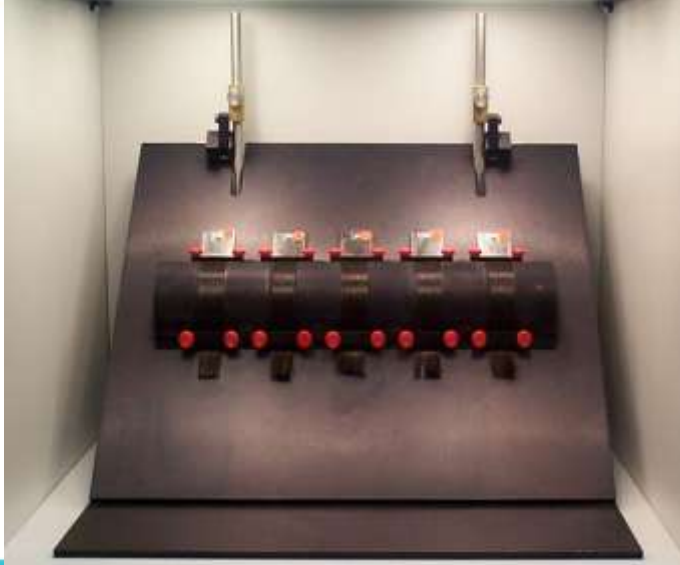
### Windows are Treated

The diagram shows two hair cross-sections. The left one is dark brown and the right one is lighter. Black arrows point to the outer cortex, and red arrows point to the inner medulla. A box labeled 'Internal Controls' has red arrows pointing to the medulla of both sections. To the right is a photograph of a hair treatment machine with a yellow tube. A small inset photo shows a woman's profile. The text 'SRCA' is at the bottom left, and '© ISP 2009' and 'ISP' logos are at the bottom.

### Volumizing Effects

Two mannequin heads show hair volume differences. To the right are two hair samples on a comb. Below are five hair samples labeled: 'Baseline', '10906-3A', '10906-3B', '10906-29B', and 'Commercial Benchmark'. The 'Commercial Benchmark' sample is significantly thicker than the others. A small inset photo shows a woman's profile. The text '© ISP 2009' is at the bottom left.

# Shine Analysis



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# Static



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### Hair Volume/Body Technology Platform

Reflected Laser

2D Translation Stage

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### Skin Tightening, Curl Enhancement

Interaction with Keratin Swatches

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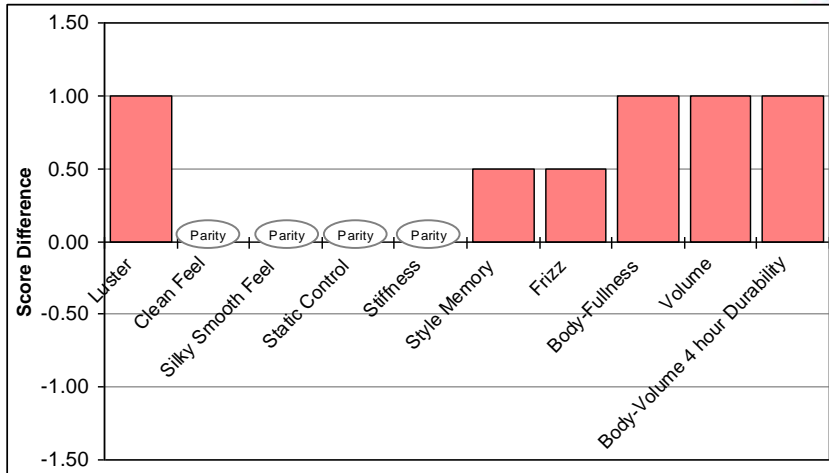
## Salon Testing to Simulate Actual Use Conditions



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## Salon or Panel Testing: Styles of Comparisons



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# Salon Testing



PATRON'S NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

TEMPERATURE: \_\_\_\_\_ °F HUMIDITY \_\_\_\_\_ %RH

SAMPLE NUMBERS: LEFT \_\_\_\_\_ RIGHT \_\_\_\_\_ AMOUNT USED: \_\_\_\_\_

DESCRIPTION OF HAIR:

TYPE	TEXTURE	FULLNESS	CONDITION	CLASS	LENGTH
VIRGIN _____	COURSE _____	THICK _____	GOOD _____	NORMAL _____	LONG _____
COLOR _____	MEDIUM _____	MEDIUM _____	FAIR _____	DRY _____	MEDIUM _____
BLEACH _____	FINE _____	THIN _____	POOR _____	OILY _____	SHORT _____
PERM _____					
RELAXER _____					

**SCORING SCALE:**    1    2    3    4    5

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# Questions to Aim the Evaluator



WET EVALUATION	LEFT	RIGHT	DRY EVALUATION	LEFT	RIGHT
DISPERSION / EASE OF SPREADING			EASE OF BLOWOUT		
TACKINESS			BODY		
CLEAN FEEL			LUSTER (Shine)		
SMOOTHNESS			CLEAN FEEL		
WET COMBABILITY / DETANGLING			SILKY / SMOOTH FEEL		
COMB DRAG			DRY COMBABILITY / DETANGLING		
RESIDUE COMB / FOAMING			COMB DRAG		
			RESIDUE (COMB)		
			RESIDUE (HAIR)		
			STATIC CONTROL		
			CURL FORMATION (CURLING IRON)		
			STIFFNESS		
			MEMORY		


COMMENTS: \_\_\_\_\_  
 POST EXAMINATION: I HAVE EXAMINED THE SCALP, EARS, NECK, AND I FIND \_\_\_\_\_ IRRITATION.

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## Whole Head: Visualization

**A**





**Initial**


**B**



**30 minutes**  
90%RH,  
80 F









**Visual Aids**

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## Calibrate and Validate Your Panel

<p><b>Shine</b> Evaluate visually how shiny the tress is.</p>	<p>10. Very, very shiny 9. Very shiny 8. Shiny 7. Shine to moderate shine 6. Moderate shine 5. Average shine 4. Slight sheen 3. Dull 2. Very dull 1. Very, very dull</p>
<p><b>Stiffness</b> Compress curl between fingers and evaluate how stiff the curl is.</p>	<p>10. Very, very stiff 9. Very stiff 8. Stiff 7. Stiff to moderately stiff 6. Moderately stiff 5. Slightly soft 4. Moderately soft 3. Soft 2. Very soft 1. Very, very soft (like natural hair)</p>
<p><b>Curl Snap</b> Hold the top of the tress and place your fingers in the center of the curl and gently pull to full extension, then release.</p>	<p>10. Excellent springback (like a rubber band) 9. Very good springback 8. Good springback 7. Moderate to good springback 6. Moderate springback 5. Fair springback 4. Fair to poor springback 3. Poor springback 2. Very poor springback 1. No springback (completely falls out)</p>



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## Use Visual TERMS to Guide the Evaluator/Panelist



CHARACTERISTIC	RATING
<p><b>Comb Drag</b> Break the crust on the outside of the curl. Comb through the tress with the large teeth of the comb 4x.</p>	<p>10. No drag 9. Very, very slight drag 8. Very slight drag 7. Slight drag 6. Slight to moderate drag 5. Moderate drag 4. Moderate to considerable drag. 3. Considerable drag 2. Heavy drag 1. Very heavy drag (can't get comb through)</p>
<p><b>Comb Residue</b>(Visual Evaluation) Hold comb at an angle and look for residue on the comb, e.g. if you see both powder and flakes give a lower rating.</p>	<p>10. No residue (nothing visible) 9. Very, very slightly visible 8. Very slightly visible 7. Slightly visible 6. Visible-powdery 5. Visible-flakes 4. Considerable 3. Considerable flaking on both sides of comb. 2. Heavy 1. Very heavy (comb is completely coated)</p>
<p><b>Hair Residue</b>(Visual Evaluation) Look at the front and back of the curl, by pulling down the length of the tress and evaluate.</p>	<p>10. No residue (nothing visible) 9. Very, very slightly visible 8. Very slightly visible 7. Slightly visible 6. Visible-powdery 5. Visible-flakes 4. Considerable 3. Considerable to heavy 2. Heavy 1. Extremely heavy (hair is completely covered)</p>

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## Rename, Rebuild for Specific Projects



CHARACTERISTIC	RATING
<p><b>Manageability</b> Comb through tress five times with the fine teeth on the comb. Remake curl and evaluate curl.</p>	<p>10. Very tight (short, full curl) 9. Tight full bouncy and springy curl. 8. Bouncy and springy curl. 7. Moderate bounce 6. Slight to moderate bounce 5. Slight bounce 4. Partially opened curl 3. Open curl 2. Almost straight 1. Straight</p>
<p><b>Static</b> Brush tresses three strokes and evaluate the static.</p>	<p>10. None (no free hair movement) 9. Very, very slight 8. Very slight 7. Slight 6. Slight to moderate fly away 5. Moderate fly away 4. Moderate to considerable fly away 3. Considerable fly away 2. Excessive fly away 1. Total fly away (impossible to manage after the first brush stroke)</p>
<p><b>Comments</b></p>	

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# Laboratory Testing

**It's All About Simulation**

**Then Interpretation**

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## Transformation of Technical Artistry into Artistic Scientist



- **Methods, Controls, Reports**
- **Writing Protocols**
- **Testing Parameters**
- **Re-Writing Test Questions**
- **Testing**

- **Purpose of Salon/Spa/Home-Use Testing**

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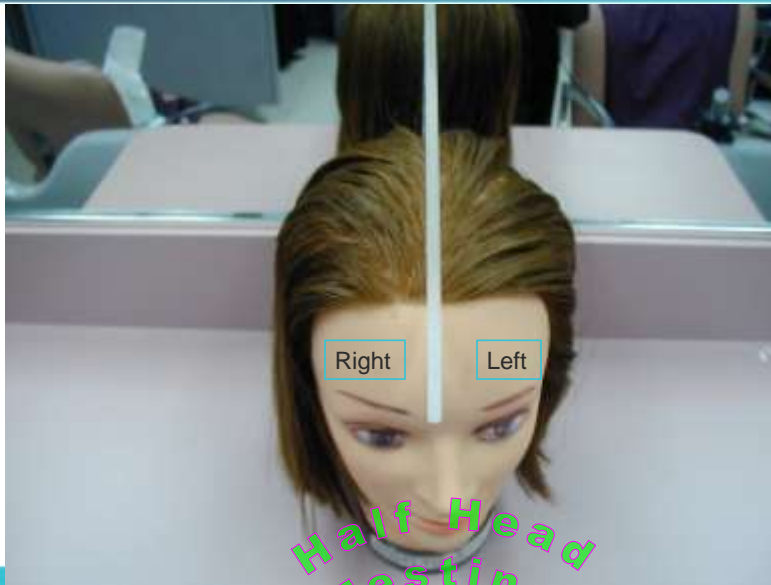
## Your Demands may DESTROY or OverSHADOW Data

- **Blind Testing May be IMPORTANT**
- **Clearly focus what the test is testing**
- **Clearly decide on technique to be used**
- **Quantify product used**
- **Quantify timing**
- **Be Flexible to get input from Designer/Artistic Scientific Evaluator**
- **What does the Consumer need? How will you see it? How will They?**
- **Look for Artifacts, Errors, Data**
- **What did you discover?**

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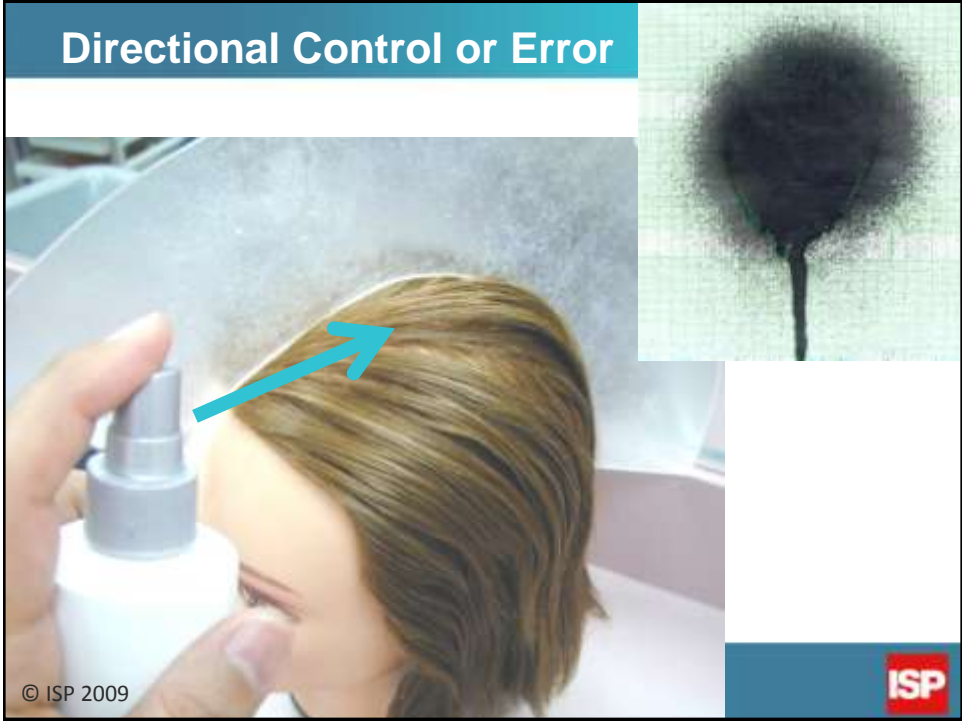
## Half Head Testing




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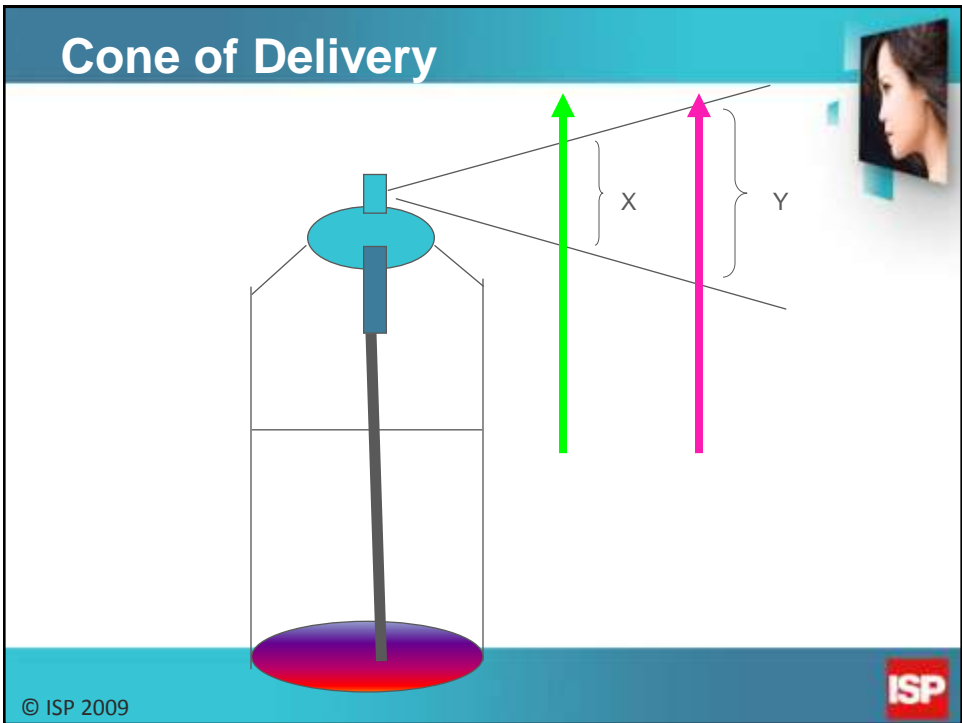
### Directional Control or Error




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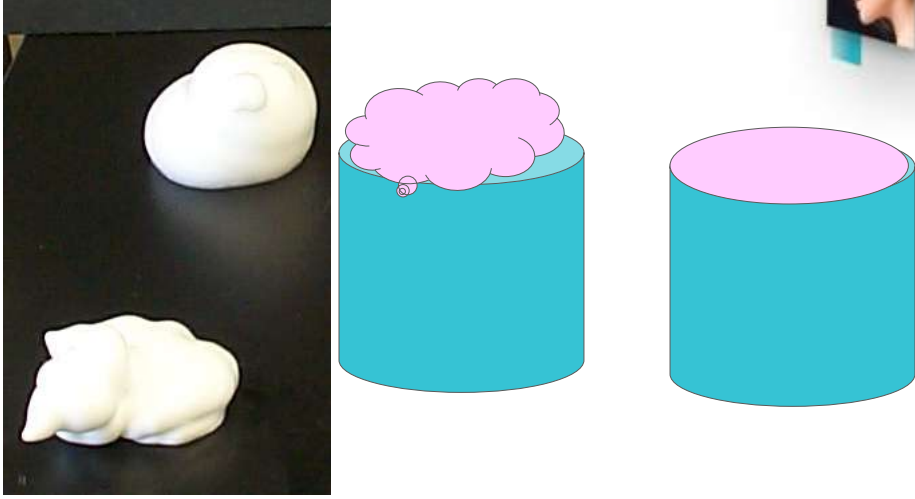
### Cone of Delivery



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### Foam Quality



The image illustrates foam quality through a combination of photographs and diagrams. On the left, a photograph shows two samples of white foam: a smooth, rounded dollop and a more irregular, bubbly mass. To the right, two diagrams of teal cylindrical containers are shown. The first container has a pink, bubbly foam layer on top, while the second container has a smooth, flat pink surface, representing different foam structures.

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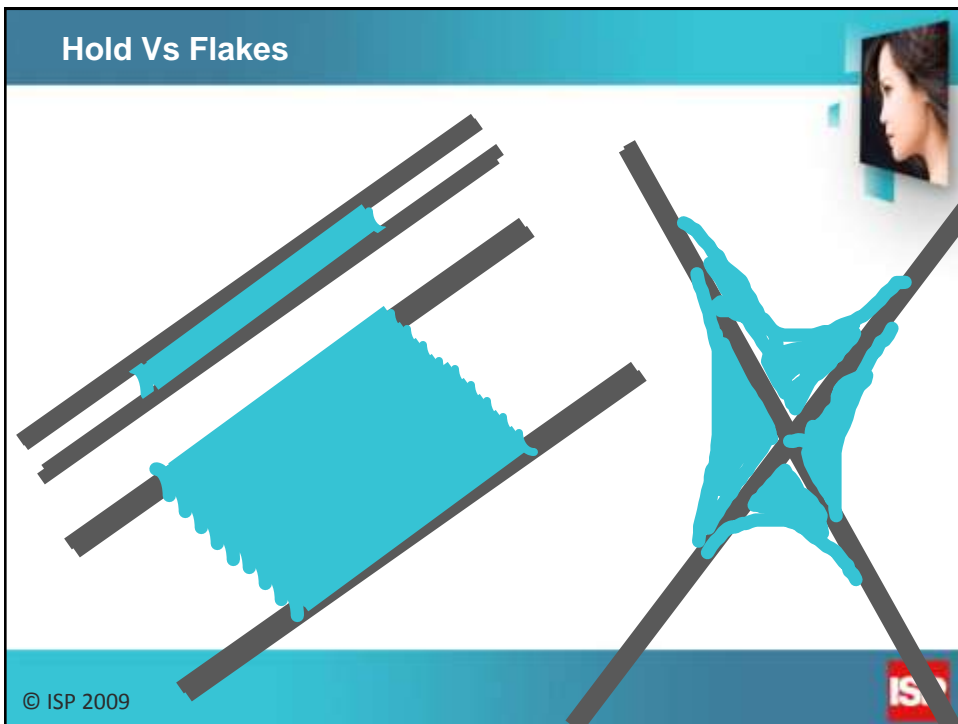
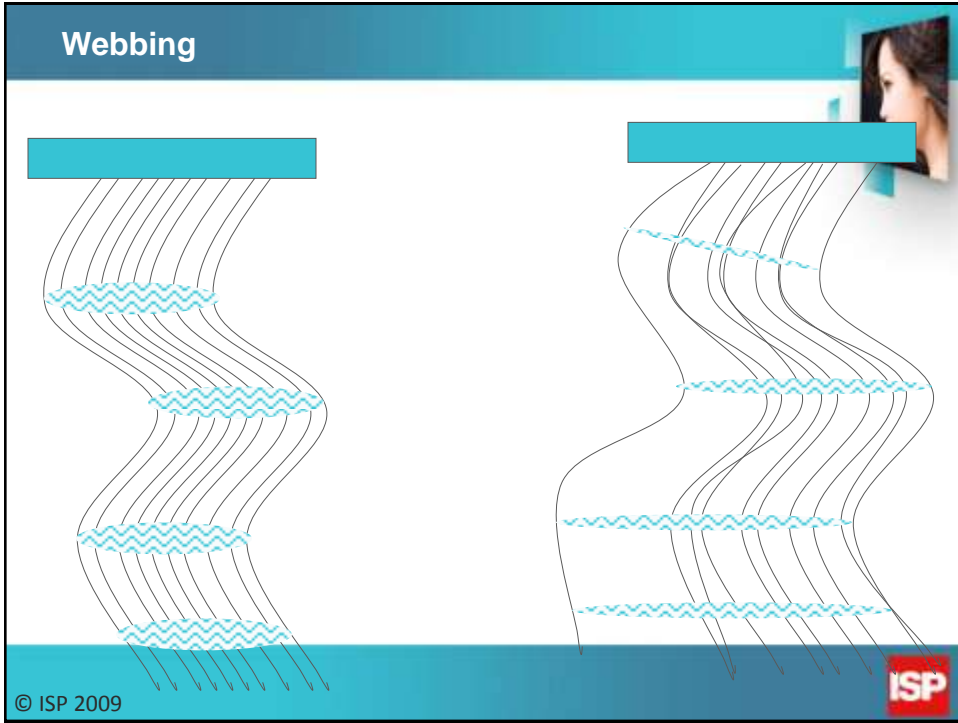
### Textures: Intuitive Implications



This section demonstrates the application of a cream and its effect on skin. It features four inset images: a hand scooping cream from a jar, a hand spreading the cream, a close-up of the cream being applied to the palm, and a hand being lifted to show a thick, stretchy layer of cream. A central photograph shows a hand with a glossy, hydrated appearance after the cream is applied.

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### Salon Mirrors, Skin or Hair Surface



### High Humidity Curl Retention



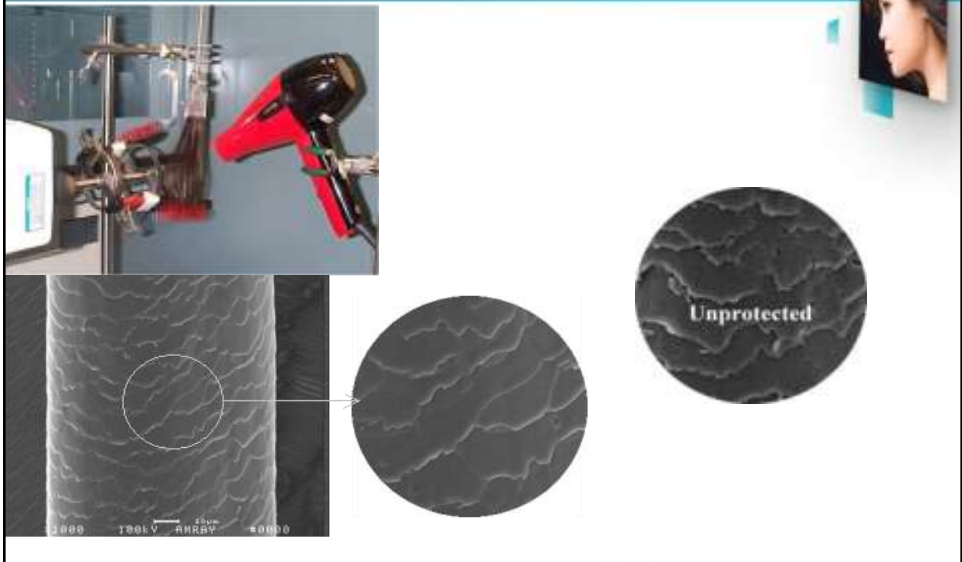
4 Alternating Formulas, 80°F, 90% RH  
Repeating, 1-2-3-4 then 1-2-3-4; 0.35g gel/2g hair

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### Laboratory Simulation, Automation



The image shows a laboratory simulation of hair drying. On the left, a red hair dryer is positioned to blow-dry hair samples held in a metal frame. Below this, a scanning electron microscope (SEM) image shows a close-up of a hair fiber with a white circle highlighting a specific area. To the right, two circular SEM images compare the hair fiber's surface: the left one shows a smooth, wavy texture, while the right one, labeled "Unprotected", shows a more irregular and damaged surface. A small inset photo of a woman's face is visible in the top right corner.

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### Tack and Dry, Smoothness {Wet, During Dry-Down, After Dry}



The image displays a laboratory setup for hair analysis. On the left, a long, dark hair sample is shown hanging from a white stand. On the right, a blue laboratory instrument, likely a hair analysis machine, is shown. It features a digital display showing "10.1" and several control knobs and buttons. A small inset photo of a woman's face is visible in the top right corner.

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## Lab Simulation



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## Calibrating the Panel

- **Define Grading Scale**
- **Train and Calibrate Your Expert Panel**
- **Run Forced Error Analysis on**
  - Process
  - Formula
  - Evaluation in the Jar, in the Hand, and on the Hair
- **Know the Limits of Detectability**



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### Visualizing the Problem

Fiber 2 before treatment



Tertiary split

Secondary split

Primary split

390  $\mu$ m

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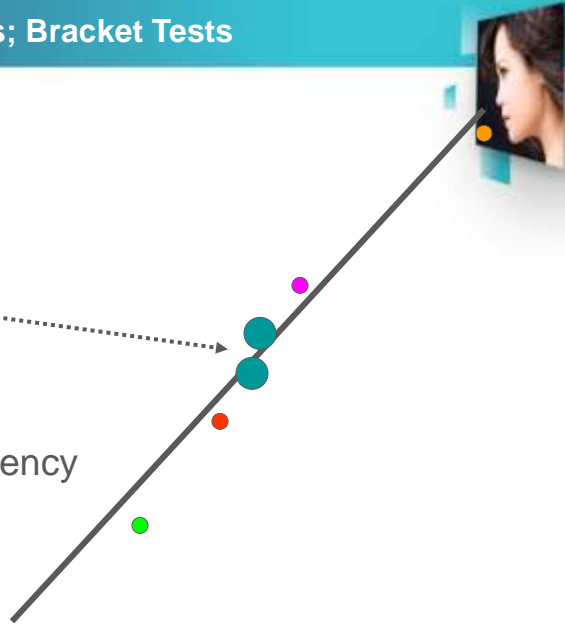
### Visualizing the Solution

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## Duplicate Data Points; Bracket Tests

- Temperature
- Distance
- Benchmarks
- Bracketing
- Substrate
- Swatch Consistency



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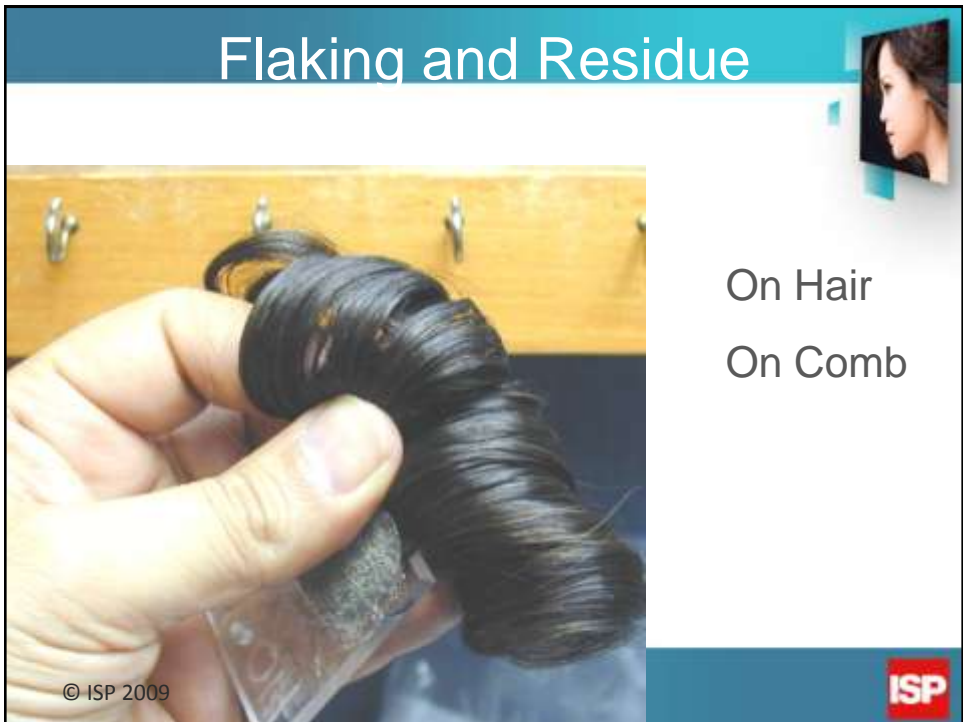
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## Shine



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Manageability

## Stability Records

**Stability Record**

Ageing Study No: 2011      Formula No: 11111.4      Notes: RepiTex A-00 1% solids (1.7% as rd) with 0.25% solids (1.25% as rd) Stylex W-20

Viscosity	°C @ 10 rpm				
Date	0	2	4	6	8
3/12/00	3952000	4592000	4592000	5722000	6422000
3/15/00	3142000	3142000	3142000	3252000	3352000
31°C	53,000	50,300	74,000	75,500	53,500
35°C	53,000	46,500	69,000	69,000	70,500
40°C	53,000	64,400	64,000	57,800	62,800
50°C	53,000	50,300	52,000		

Date	3/12/00	3/15/00	3/18/00	3/22/00	3/25/00	3/29/00
31°C	OK	OK	OK	OK	OK	OK
35°C	OK	OK	OK	OK	OK	OK
40°C	OK	OK	OK	OK	OK	OK
50°C	OK	OK	OK	OK	OK	OK

pH	Time (weeks)					
Date	0	2	4	6	8	10
3/12/00	5.71	5.77	5.65	5.70	5.70	5.70
3/15/00	5.71	5.76	5.62	5.70	5.70	5.70
3/18/00	5.71	5.76	5.68	5.70	5.70	5.70
3/22/00	5.71	5.76	5.68	5.70	5.70	5.70
3/25/00	5.71	5.77	5.60	5.70	5.70	5.70
3/29/00	5.71	5.77	5.60	5.70	5.70	5.70

Date	3/12/00	3/15/00	3/18/00	3/22/00	3/25/00	3/29/00
31°C	OK	OK	OK	OK	OK	OK
35°C	OK	OK	OK	OK	OK	OK
40°C	OK	OK	OK	OK	OK	OK
50°C	OK	OK	OK	OK	OK	OK

Formula 1111.4 1.7% as rd in RepiTex A-00 with 1.25% as rd in Stylex W-20 was placed on full stability. Initial pH 5.71, vis: 70 @ 15rpm 53,000cp. 2 weeks stability showed significant increase in vis. from 53,000cp to Ref 68,000cp, 56,000cp at RT, 64,400cp at 40C and 50,300 at 50C. 1 month results show slight increase in viscosity. refrigeration=61,000cp, RT=69,000cp, 40C=64,000cp, 50C no change=52,000cp. 2 months results show significant increase in vis. at ref, RT and RT. There is an increase in vis. at 40C to 57,800cp. 3 months results show significant increase in viscosity. at all states. RT shows significant increase in viscosity after each cycle 59,500cp vis. 65,000cp. Initial 57.00, RepiTex A-00 1.7, Stylex W-20 1.25% as rd.

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## Thank You



- **Enjoy Designing, Creating, Making, Testing, and Improving**
- **Nurture Several Mentors**
- ***Raise the Bar***

Joseph A. Dallal, L.C., M.Sc. [jdallal@ispcorp.com](mailto:jdallal@ispcorp.com)

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